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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,307	10/26/2001	Michael R.S. Hill	P-8969.00	2140
27581	7590	04/26/2007		
MEDTRONIC, INC. 710 MEDTRONIC PARK MINNEAPOLIS, MN 55432-9924			EXAMINER OROPEZA, FRANCES P	
			ART UNIT	PAPER NUMBER
			3766	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/26/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.



Office Action Summary	Application No. 10/039,307	Applicant(s) HILL ET AL.	
	Examiner Frances P. Oropeza	Art Unit 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/23/07 (Elec) & 11/19/0 (Amend & Resp).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 1-16 and 28-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Restriction

1. Claims 1-16 and 28-40 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 2/23/07.
2. The Applicant's election with traverse of Group II, defined by claims 17-27, in the reply filed on 2/23/07 is acknowledged. The traversal is on the grounds that it is the Applicants' understanding that there is not undue burden impose on the Examiner to examine the subject application as originally filed. This is not found persuasive because the application has been amended to include seven distinct inventions, and examining seven distinct inventions would place undue burden on the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

3. This application contains claim 1-16 and 28-40 drawn to an invention nonelected with traverse in the reply filed on 2/23/07. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Response

4. The Applicant amended at least the independent claim 17 in the response file 11/19/06, hence the rejection of record is withdrawn and a new rejection established in the subsequent paragraphs.

Claim Rejections - 35 USC § 103

5. Claims 17, 18, 20-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obel et al. (US 5199428) and further in view of Collins (US 5203326).

Obel et al. disclose an implantable electrical nerve stimulator/ pacemaker for a human/ mammal, the nerves being automatically stimulated in the region of the thoracic vertebra T2 providing electrical communication and the stimulation coordinated to resynchronization the heart to protect the myocardium (abstract; col. 1 @ 15-24; col. 3 @ 8-28 & 42-45; col. 3 @ 62 – col. 4 @ 26; col. 5 @ 25-64).

Obel et al. disclose pacing therapy using a anti-tachycardia pacing system (col. 9 @ 53 – col. 10 @ 2) and therapy using a back-up pacemaker (104) (col. 6 @ 66 – col. 7 @ 25) that can also provide programmable parameters and alternate pacing modes (col. 8 @ 49-62).

Obel et al. teach cardiac therapy that decreases cardiac workload (abstract), protects the myocardial cells by reducing the oxygen demand, hence optimizing cardiac output (col. 2 @ 9-13), decreases the ischemia and the potentially induced arrhythmias such as bradyarrhythmia and tachycardia (col. 2 @ 59-65, col. 3 @ 29-33, col. 9 @ 53-57), provides pacing therapies to maintain the patient's heart rhythm within acceptable limits (col. 3 @ 8-13), ameliorates myocardial ischemia and maintains adequate cardiac rate (col. 3 @ 14-15), exerts a tonic effect to slow the heart down and control tachycardia (col. 5 @ 5-18), and treats conditions and arrhythmias of a heart associated with coronary artery disease and myocardial insufficiency (col. 10 @ 31-35), these therapy outcomes read to improve cardiac performance and efficiency of the patient's heart.

As to claim 22 and improving the balance of a neuro-endocrinological system, it is well known in the art as disclosed in US 5203326 to Collins (cited as art made of record) that:

- electrical stimulation of the nerves of the autonomic nervous system can be used to the control the heart (abstract),
- the autonomic nervous system includes the sympathetic and the parasympathetic nervous systems that regulate activities of the cardiac muscle (heart) and the glands (endocrine system) (col. 1 @ 36-39), and
- the autonomic nervous system can be stimulated by the vagal nerve to treat arrhythmias (col. 5 @ 5-40; col. 5 @ 59 – col. 6 @ 35).

hence, Obel et al. is accepted to teach improving of the ~~neuro~~^{neuro}-endocrinological system.

It is noted the concepts of treating a patient to improve cardiac performance and efficiency of the patient's heart, and to improve balance of a neurological system of the patient amount to an intended use limitations of which Obel et al. performs or is inherently capable of performing.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Obel et al. (US 5199428) and Collins (US 5203326) in view of Adams (US 57982187).

As discussed in paragraph 5 of this action, modified Obel et al. disclose the claimed invention except the electrode located external to the patient's body.

Adams teaches pain suppression treatment using an electrode (100) located external to the patient's body at the spine proximate to the dorsal root sensory ganglia for the purpose of relieving pain associated with the high voltage stimulation. It would have been obvious to one

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having ordinary skill in the art at the time of the invention to have used an electrode located external to the patient's body in the modified Obel et al. system in order to offer a proven treatment for the pain associated with high voltage shocks so the patient's pain, apprehension, and anxiety is controlled (abstract; col. 2 @ 48-55; col. 3 @ 1-8 & 45-48; col. 7 @ 11-24).

It is noted both electrical and electromagnetic pain suppression systems are well known in the art, and absent any teaching of criticality or unexpected results merely changing the type of system from an electromagnetic system to an electrical system would be an obvious design choice.

Specification

7. The status of the cases on page 1 of the specification continues to need to be updated.

Statutory Basis

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Conclusion

The Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07(a). The Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fran Oropeza whose telephone number is (571) 272-4953. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl H. Layno can be reached on (571) 272-4949. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communication and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Carl H. Layno
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Frances P. Oropeza
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FPO
4/24/07